
PWC MUSE/MOBILE SUBSTATION CONNECT

Purpose:
SOP for connecting MUSE or Mobile Substations on Piers.

Potential Energy Sources:
Backfeed from ship, Primary 15 KV feed, capacitors on MUSE/Mobile Sub for breaker operation.

Tools and PPE:
Nomex coveralls, Nomex hoods, Class 2 gloves, face shield, shotgun stick, potential tester, spanner wrench, 7/16 and 9/16" wrenches, flat head screwdriver, grounds, 1000/5000 volt insulation resistance tester.

References:
1. OSHA 1910 safe working practices.
2. OSHA 1910.333 table S-5 approach distances.
3. NEETA Maintenance Testing Specifications.

Procedures:
1. Verify that the circuit feeding the PLM receptacle to be used is open, locked, and tagged. WC 623 Electrician will have clearance stubs in possession.

2. Remove rear cover to the secondary switchgear on the MUSE/Mobile Sub and perform a 1000 volt phase to phase and phase to ground insulation resistance test on the bus. Values should be greater then 2 megaohms. If values are below 2 megaohms apply heat.

3. Remove PLM receptacle cover and test the receptacle deenergized with a 15KV potential tester. Wear Nomex coveralls, hoods, face shield and class 2 gloves.

4. Connect a ground to the receptacle cover and connect to all three phases of the receptacle for 1 minute. Wear Nomex coveralls, hoods, face shield and class 2 gloves until all three grounds are connected.

5. Clean the PLM receptacle and PLM plug. Perform a 5000 volt insulation resistance test phase to phase and phase to ground to the PLM receptacle and PLM plug. Insulation values shall be

greater than 10 megaohms. If values are below 10 megaohms, leave tester connected for 10 minutes to dry cable out.

6. Connect PLM plug to PLM receptacle.

7. Set up barricades around the 15KV cable, and hang Danger high voltage tape.

8. Have WC 622 close the primary feed to energize the MUSE/Mobile Sub.

9. Close one shore power breaker. Test for proper voltage and phase rotation. Follow 622.5HVE12 "Operation of Shore Power Breakers From the Turtleback". If phase rotation is wrong inform WC 623 Supervisor.

10. Close all shore power breakers and test for proper operation and voltage. Follow 622.5HVE12. Hang a repair tag for each breaker not operating properly and turn in repair tag stub to WC 623 supervisor. When completed, leave all shore power breakers in the open position.